

Claims

1. (cancelled) Evaporator, especially a respiratory humidifier, comprising:
a storage tank for a liquid; and
a casing; an opening of the storage tank largely imperviously closing with a portion of the casing.
2. (cancelled) Evaporator according to claim 1, wherein there is a position at which the edge of the opening of the storage tank is spaced away from the portion of the casing farther than usual.
3. (cancelled) Evaporator according to claim 1, wherein the storage tank is made of one piece.
4. (cancelled) Evaporator according to claim 1, wherein the casing comprises a gas inlet and a gas outlet, that a seal is arranged between the casing and the storage tank so as to produce a gas-proof connection between the casing and the storage tank, and that a half thread is provided to fasten the storage tank on the casing.
5. (cancelled) Evaporator according to claim 1, wherein the casing comprises a gas inlet and a gas outlet, that a seal is arranged between the casing and the storage tank so as to produce a gas-proof connection between the casing and the storage tank, and that a bayonet catch is provided to fasten the storage tank on the casing.
6. (cancelled) Evaporator according to claim 1, wherein the casing is constructed such that, when the storage tank is installed and at least partially filled with liquid, a thin liquid layer is formed in the casing next to the opening of the storage tank, above which gas can be passed along.
7. (cancelled) Evaporator according to claim 5, wherein a heater is disposed underneath the position provided for the thin liquid layer.
8. (cancelled) Evaporator according to claim 7, wherein the heater is made of a PTC-resistor.

9. (cancelled) Evaporator according to claim 1, wherein the evaporator further comprises a bottom part having an electrical terminal detachably connected to the casing by a spike and a catch.
10. (cancelled) Evaporator according to claim 6, wherein the evaporator further comprises a bottom part having an electrical terminal detachably connected to the casing by a spike and a catch, the electric contact between the heater and the electrical terminal being produced via contact surfaces on the casing and contact spring pins in the bottom part.
11. (cancelled) Evaporator according to claims 6, wherein the evaporator further comprises a bottom part having an electrical terminal detachably connected to the casing by a spike and a catch, the electric contact between the heater and the electrical terminal being produced via plugs mechanically connected to the upper part and sockets arranged in the bottom part in a hidden manner.
12. (cancelled) Evaporator according to claim 4, wherein a gas lock is located between the gas inlet and the gas outlet.
13. (cancelled) Storage tank for a liquid with an opening, wherein the opening forms a substantially even rim with a notch.
14. (cancelled) Casing for an evaporator for accommodating a storage tank, wherein the casing comprises a portion formed such that it substantially imperviously closes with an opening of the storage tank.
15. (new) An evaporator, especially a respiratory humidifier, comprising:
a storage tank for a liquid; said storage tank having an opening at its bottom and
a casing; the opening of the storage tank mostly but not entirely imperviously closed to a
bottom portion of the casing having; the opening of the storage tank being below the liquid
level in the storage tank during operation.

16. (new) The evaporator according to claim 15, wherein there is a position at which the edge of the opening of the storage tank is spaced away from the portion of the casing farther than usual.
17. (new) The evaporator according to claim 15, wherein the storage tank is made of one piece.
18. (new) The evaporator according to claim 15, wherein the casing comprises a gas inlet and a gas outlet, that a seal is arranged between the casing and the storage tank so as to produce a gas-proof connection between the casing and the storage tank, and that a half thread is provided to fasten the storage tank on the casing.
19. (new) The evaporator according to claim 15, wherein the casing comprises a gas inlet and a gas outlet, that a seal is arranged between the casing and the storage tank so as to produce a gas-proof connection between the casing and the storage tank, and that a bayonet catch is provided to fasten the storage tank on the casing.
20. (new) The evaporator according to claim 15, wherein the casing is constructed such that, when the storage tank is installed and at least partially filled with liquid, a thin liquid layer is formed in the casing next to the opening of the storage tank, above which gas can be passed along.
21. (new) The evaporator according to claim 20, wherein a heater is disposed underneath the position provided for the thin liquid layer.
22. (new) The evaporator according to claim 21, wherein the heater is made of a PTC-resistor.
23. (new) The evaporator according to claim 15, wherein the evaporator further comprises a bottom part having an electrical terminal detachably connected to the casing by a spike and a catch.

24. (new) The evaporator according to claim 21, wherein the evaporator further comprises a bottom part having an electrical terminal detachably connected to the casing by a spike and a catch, the electric contact between the heater and the electrical terminal being produced via contact surfaces on the casing and contact spring pins in the bottom part.
25. (new) The evaporator according to claim 21, wherein the evaporator further comprises a bottom part having an electrical terminal detachably connected to the casing by a spike and a catch, the electric contact between the heater and the electrical terminal being produced via plugs mechanically connected to the upper part and sockets arranged in the bottom part in a hidden manner.
26. (new) The evaporator according to claim 19, wherein a gas lock is located between the gas inlet and the gas outlet.
27. (new) The evaporator according to claim 15, wherein the storage tank opening forms a substantially even rim with a notch.
28. (new) The evaporator according to claim 15, further comprising an evaporator casing housing the storage tank, and formed to mostly but not entirely imperviously close with an opening of the storage tank.
29. (new) Storage tank for a liquid with an opening, wherein the opening forms a substantially even rim, the rim having a notch, the notch constituting a well-defined leakage when the rim is pressed against a plane.